

Claims

[c1]

An apparatus for enhancing living tissue comprising:

a vessel having an open end and adapted to encompass the tissue to be

enhanced;

a source of vacuum connected to said vessel; and

a flexible mass affixed to the open end of said vessel to absorb the pressure exerted by said vacuum, thereby acting as a seal and force diffuser between the vessel and the tissue adjacent the periphery of said vessel.

[c2]

The apparatus in accordance with claim 1, wherein said vessel has a shape generally conforming to the shape of the tissue to be enhanced.

[c3]

The apparatus in accordance with claim 1, wherein said vessel has a volume greater than the volume of tissue to be enhanced.

[c4]

The apparatus in accordance with claim 1, wherein said vessel has a shape which is varied to control the shape of the tissue enhanced.

[c5]

The apparatus in accordance with claim 1, wherein said vessel is dome-shaped having a periphery to surround the tissue to be enhanced.

[c6]

The apparatus in accordance with claim 1, wherein said vessel has an opening separate from said open end for connection to said source of vacuum.

[c7]

The apparatus in accordance with claim 1, wherein said flexible mass includes an air-pocket.

[c8]

Apparatus for enlarging soft living tissue comprising:

a vessel having a rim defining an open end, the rim being adapted to encompass the tissue;

a source of vacuum connected to the vessel; and

a flexible mass secured to the rim to distribute the forces exerted by said vacuum, thereby acting as a seal and force distributor between the vessel and the tissue adjacent the rim of said vessel.

[c9]

The apparatus in accordance with claim 8 wherein the flexible mass comprises a gasket.

09/812,812

- [c10] The apparatus in accordance with claim 9 wherein the gasket comprises an inflated bladder.
- [c11] The apparatus in accordance with claim 8 wherein the flexible mass comprises a flexible cushion.
- [c12] The apparatus in accordance with claim 8 wherein the rim comprises a circumferential flange.
- [c13] An apparatus for enlarging living tissue comprising:
a vessel having an open end and adapted to encompass the tissue to be enlarged;
a source of vacuum connected to said vessel; and
a mass of elastic material affixed to the perimeter of the open end of said vessel to transform said vacuum applied to create a seal and force diffuser for the forces between the interior of the vessel and the tissue on which said vessel rests.
- [c14] The apparatus in accordance with claim 13, wherein said vessel has a shape generally conforming to the shape of the tissue to be enlarged.
- [c15] The apparatus in accordance with claim 13, wherein said vessel has an interior volume greater than the volume of the tissue to be enlarged.
- [c16] The apparatus in accordance with claim 13, wherein said vessel has a shape which is varied to control the configuration of the resultant enlargement.
- [c17] The apparatus in accordance with claim 13, wherein said vessel is dome-shaped and open at one end to encircle the tissue to be enlarged.
- [c18] The apparatus in accordance with claim 13, wherein said vessel has an opening separate from said open end for connection to a source of vacuum.
- [c19] The apparatus in accordance with claim 13, wherein said elastic material surrounds an air pocket.
- [c20] An apparatus for enhancing living tissue comprising:
a vessel having an open end and adapted to encompass the tissue to be enlarged;
a source of vacuum connected to said vessel;

09/818,812-060101

a flexible mass attached to the open end of the vessel to act as a seal and force distributor between the vessel and the tissue adjacent the periphery of said vessel.

- [c21] A method of enhancing soft living tissue comprising:
- providing an apparatus comprising a vessel having a rim defining an open end and a flexible mass secured to the rim;
 - positioning the apparatus such that the vessel surrounds the soft living tissue and such that the flexible mass is in operative contact with adjacent living tissue, the adjacent living tissue being adjacent the soft living tissue;
 - reducing pressure within the vessel to a pressure which causes the flexible mass to apply to the adjacent living tissue a contact pressure in excess of 20 mm Hg;
 - maintaining the contact pressure above 20 mm Hg for a time period T_1 , the time period T_1 being less than a time period T_2 , the time period T_2 being the minimum time period which will result in damage to the adjacent living tissue if the contact pressure is maintained for such minimum time period;
 - reducing the contact pressure upon expiration of the time period T_1 .

- [c22] The method in accordance with claim 21 wherein the step of reducing the contact pressure upon expiration of the time period T_1 comprises reducing the contact pressure a sufficient amount and for a sufficient duration to allow re-perfusion of the adjacent living tissue.

09818812 060101

9mo 91